S.N. 10/632,277

Date of Response: February 28, 2006

Date of Office Communication: November 23, 2005

# REMARKS

Applicants appreciate the consideration shown by the Patent Office, as evidenced by the November 23, 2005 Office Action, Interview Summary and Advisory Action mailed February 13, 2005. In the Advisory Action, Examiner stated the amendments made by Applicant in response to the November 23, 2005 Office Action would not be entered since the amendments would require additional search and examination. As such, Applicant is filing concurrently herewith a RCE for further examination and consideration of rejected claims 1-37.

Applicants thank the Examiner for the Examiner interview on January 17, 2006. During the interview and as indicated in the 1/20/2006 interview summary, an amendment adding the limitation of a 2-dimensional array would overcome the present rejections of Kingsley (U.S. Patent 5,179,284) in view of Akai (U.S. Patent 5,378,894).

Claims 1-37 remain pending in this application.

After careful consideration of the November 23, 2005 Office Action, Claims 1, 20, 27, and 34 have been amended to recite a 2D scintillator array. As such, Applicant respectfully submits that the claims as amended and claims depending therefrom are now in allowable condition of the Kingsley and Akai references.

Applicants respectfully request reconsideration of the application by the Examiner in light of the above amendments and the following remarks offered in response to the November 23, 2005, Office Action.

#### Rejections under 35 U.S.C. §103(a)

#### Kingsley in view of Akai

Claims 1, 4-5, and 9-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kingsley (U.S. Patent 5,179,284) in view of Akai (U.S. Patent 5,378,894).

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However, the Office Action even admitted that "Kingsley et al. also do not disclose that the reflective layer is provided on the sidewalls of the scintillator elements. Instead, Kingsley et al. only provide for the reflective/protective layers on the top surface of the scintillator, as illustrated in Figure 1." (Page 3.) Furthermore, the Office Action also admitted that "Kingsley et al. are further silent with regards to the claimed thickness and material of the smoothening layer. Kingsley et al. provide for a smoothening layer in the form of pellicle layer 40, which is a 200-600 Angstroms thick layer of nitrocellulose, poly(paraxylene), organopolysiloxanepolycarbonate, or kryolite." (Page 4.)

Kingsley in view of Akai fails to disclose the location of the reflective material, composition of the reflective layer material, and 2-dimensional array of scintillator elements.

Regarding location of the reflective material, Kinsley only provides a reflective material on the top surface of the scintillator, while Akai provides reflective materials only on sidewalls.

Regarding composition of the reflective layer material, Akai only discloses a blocking material of metallic thin film and at least two polymer sheets and fails to disclose a reflective material comprising a smoothening layer.

Regarding the 2-dimensional array of scintillator elements, Akai only discloses scintillator elements comprising a reflective material in 1-dimension; and 2-dimension is not obvious over Kingsley in view of Akai because it is inoperable to coat the side and hence no likelihood of success. The layers in between the gaps of the 2-dimensional scintillator elements are small and parallel to the side; hence, Akai is inoperable and fails to disclose 2-dimensional scintillator elements coated on the side and top with a reflective layer material having a smoothing layer.

Thus, it would not have been obvious for a person having ordinary skill in the art to

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modify the Kingsley et al. in view of Akai.

## Kingsley in view of Akai and further in view of Yoshida

Claims 2-3, 6-8, and 21-26 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kingsley et al. and Akai, as applied to Claims 1, 5, and 20 above, and further in view of Yoshida (US Patent Application Publication #2002/0196628).

Kingsley in view of Akai fails to disclose the location of the reflective material, composition of the reflective layer material, and 2-dimensional array as discussed above. Yoshida fails to disclose the missing elements. Thus, it would have not have been obvious for a person having ordinary skill in the art to modify the combination of Kingsley et al. and Akai in further view of as Yoshida et al.

#### Kingsley in view of Akai and Bahls

Claims 27-28, 31-32, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al. (US Patent # 5,179,294), in view of Akai (US Patent #5,378,894) and Bahls (US Patent # 3,983,266).

Kingsley in view of Akai fails to disclose the location of the reflective material, composition of the reflective layer material, and 2-dimensional array as discussed above. Bahls fails to disclose the missing elements. Thus, it would have not have been obvious for a person having ordinary skill in the art to modify the combination of Kingsley et al., Akai and Bahls.

### Kingsley, Akai, and Bahls, and further in view of Krulik

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Krulik (US Patent # 5,232,492).

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Kingsley in view of Akai fails to disclose the location of the reflective material, composition of the reflective layer material, and 2-dimensional array as discussed above. Bahls and Krulik fail to disclose the missing elements. Thus, it would have not have been obvious for a person having ordinary skill in the art to modify the combination of Kingsley et al., Akai, Bahls and Krulik. Thus, it would not have been obvious for a person having ordinary skill in the art to modify the combination of Kingsley et al., Akai, Bahls and Krulik.

#### Kingsley, Akai, and Bahls, and further in view of Kozlov

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Kozlov et al. (US Patent # 6,455,175).

Kingsley in view of Akai fails to disclose the location of the reflective material, composition of the reflective layer material, and 2-dimensional array as discussed above. Bahls and Kozlov fail to disclose the missing elements. Thus, it would have not have been obvious for a person having ordinary skill in the art to modify the combination of Kingsley et al., Akai, Bahls and Kozlov.

### Kingsley, Akai, and Bahls, and further in view of Ferrell

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley et al., Akai, and Bahls, as applied to Claim 27 above, and further in view of Ferrell (US Patent #6,180,524).

Kingsley in view of Akai fails to disclose the location of the reflective material, composition of the reflective layer material, and 2-dimensional array as discussed above. Bahls and Ferrell fail to disclose the missing elements. Thus, it would have not have been obvious for a person having ordinary skill in the art to modify the combination of Kingsley et al., Akai, Bahls and Ferrell.

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In light of the amendment and remarks presented herein, Applicant submits that the case is in condition for immediate allowance and respectfully requests such action. If, however, any issues remain unresolved, the Examiner is invited to telephone the Applicants' counsel at the number provided below.

Respectfully submitted,

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